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NSWC Port Hueneme Tests Digital Ship-to-Shore Communications with 26th Marine Expeditionary Unit

In a joint warfare effort between the Navy and the Marines, Naval Surface Warfare Center (NSWC) Port Hueneme Division has been collaborating with Marine Expeditionary Units (MEUs) during the past several months to test ship-to-shore digital capabilities using Advance Field Artillery Tactical Data System (AFATDS) for joint combat exercises. The most recent test event took place Aug. 21 with the 26th MEU on USS Bataan (LHD-5) in Norfolk, Va. This collaboration was in preparation of the 26th MEU upcoming deployment.

“Port Hueneme has conducted these tests as part of system integration testing to validate the new capabilities and functionalities installed for SACC-A [Supporting Arms Coordination Center-Automation] for all Landing Helicopter Assault (LHA) and Landing Helicopter Dock (LHD) class ships. In the last ten months, we have participated in testing with the 11th, 13th, 24th and 26th MEUs,” said Ho Trieu, NSWC Port Hueneme SACC-A systems engineering team lead.

The purpose of the testing is to upgrade system software and groom shipboard SACC-A equipment for Expeditionary Strike Group Integration Testing (ESGINT), which will take place in the Atlantic for several weeks. Benefits created by this technology include an enhanced ability of the warfighter to accumulate, interpret, display and exchange numerous types and quantities of data with his or her counterparts. For this specific application, the construct of a digital network provides the means to transport this data, which is necessary to process fire missions and engage enemy targets with improved accuracy and precision. During ESGINT, the Marines conduct exercises to simulate digital data links and communications exchanged between a ship and the MEU on shore.

During the testing, the top deck of the ship is utilized while several different locations away from the ship are used to simulate shore sites. The test objectives were to validate the ability of the ship and shore sites to exchange digital and voice communications via High Frequency (HF) and Very High Frequency (VHF) radios. The testing involved a great deal of system configuration and set-up time. SACC command workstations, AFATDS systems onboard the ship, and the shore sites were configured with parameters that both workstations could recognize, such as the unit’s unique number, IP address, data rate, and frequency. Ship’s force, NSWC Port Hueneme engineers, and the 26th MEU worked together to ensure system configuration efforts yielded satisfactory test results.

“The collaborated testing was very successful. Both the ship and shore-based Marines were able to exchange voice and digital communications, which are the critical capability elements of the deployed Expeditionary Strike Group,” said Trieu.

AFATDS systems are currently employed and fielded by ground forces in the Army and Marines. In order to provide the Navy a common digital link with the fires community, it has now have been effectively integrated by the SACC-A program on amphibious command ships. This capability will give the Navy the ability to process missions and joint fires among the services and allows distribution of vital information in the conduct of joint military planning and operations.